

**Claims**

1. A new and distinct genotype of *Artemisia annua* 'CIM-Arogya', developed through marker assisted breeding, possessing the following combination of characters:

- |    |   |  |
|----|---|--|
| 5  | - Genus   | <i>Artemisia</i>   |
|    | - Species   | <i>annua</i>   |
|    | - Family  | Asteraecae   |
|    | - Common name   | Qinghao  |
|    | - Plant height  | 280-305 cm   |
| 10 | - Plant canopy  | Oval   |
|    | - Growth habit  | Erect  |
|    | -Branching  | sympodial branching pattern                                      |
| 15 | -Stem:  | ingle, round hard woody green (137D)<br>Stem width 5-12 cm (app) |
|    | - Number of Branches:-  |  |
| 20 | -primary branches:  | -55-65   |
|    | -Secondary branches per primary branch:                           | -50-60-  |
|    | -Tertiary branches per secondary branch:                          | -37-45   |
|    | -Range of length of Internodes                                    |  |
| 25 | -Main stem –  | 4-6cm at bottom, 10-12cm at middle, 2-5 cm at the top            |
|    | -Primary branch   | 2-5 cm at bottom, 8-11 cm at middle, 2-4 cm at the top           |
|    | -Secondary branch   | 8-11 cm at the bottom, 5-7 cm at the middle, 1-3 cm at the top   |
|    | -Tertiary branch  | 3-5 cm at the bottom, 1-3cm at the middle, 0.5-1.5 cm at the     |
| 30 | top   |  |
|    | -Leaf-  | Green (137 B)  |
|    | -Texture-   | Thin and flexible  |
|    | -Surface –  | Smooth non pubescent   |
| 35 | -Shape-   | Pinnately compound leaf  |
|    | -Margin-  | Pinnetisected  |
|    | -Tip-   | Acute  |
|    | -Petiol length-   | 2.5-3.50 cm  |
|    | -Lamina length-   | 5-7cm  |
| 40 | -Lamina width-  | 4-5cm  |
|    | -Inflorescence-   | Capitulum (head)   |
|    | -Flower-  | Arranged in whorls. Colour yellow group (7A)                     |
|    | -Two types of flowers   | Disc florets and Ray florets.                                    |
| 45 | -Disc florets are bisexual and ray florets are unisexual (female) |  |
|    | -Colour   | Greenish yellow 2-3mm in diameter                                |
|    | -Receptacles  | Glabrous   |

- Calyx                      Bracteates
- Corolla                  Sympelalous, tubular top split in to 5 lobes in Disc florets and 2-3 lobes in Ray florets (legulate)
- 5                            -Androecium              5 stamens, Anther lobes are fused and filaments are free
- Colour                    Yellowish
- Gynoecium              Unilocular, inferior bifid stigma.
- Colour                    yellowish
- 10                        -Time of flowering-    198 days.
- Seed setting            240 days (app)
- Artemisinin content   0.9 to 1.1%
- Artemesinic acid      0.002- 0.004%
- Oil content              0.35-0.45%
- 15                        -alternate deeply dissected aromatic leaves ranging between 2.5 to 5.0 cm in length.
- tiny yellow nodding flowers (capitula)
- capitula in loose panicle containing numerous central bisexual florets and marginal pistillate florets
- receptacle is glabrous
- 20                        -florets and receptacle bear abundant 10-celled biseriate trichomes
- globular canopy
- dry leaf yield of about 50 Q per hectare
- flowers (7A) arranged in a head or Capitulum.